



National Transportation Safety Board Aviation Accident Data Summary

Location:	DORCHESTER, NH	Accident Number:	NYC97FA194
Date & Time:	12/24/1996, 1005 EST	Registration:	N388LS
Aircraft:	Learjet 35A	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

The first officer was in the left seat, flying the airplane, and the captain was in the right seat, for the positioning flight. Approaching the destination, the crew briefed, then attempted an ILS RWY 18 approach. The captain reported not receiving the localizer, when, in fact, the airplane was actually about 5 nautical miles to the left of it. Winds at the airport, about that time, were from 190 degrees true, at 5 knots; however, area winds at 6,000 feet were from 220 degrees, in excess of 40 knots. The crew executed a missed approach, but did not follow the missed approach procedures. The captain later requested, and received clearance for, the VOR RWY 25 approach. The captain partially briefed the approach to the first officer as the airplane neared the VOR, then subsequently "talked through" remaining phases of the approach as they occurred. The outbound course for the VOR RWY 25 approach was 066 degrees, and the minimum altitude outbound was 4,300 feet. After passing the VOR, the captain directed the first officer to maintain 4,700 feet. The airplane's last radar contact occurred as the airplane was proceeding outbound, 7 nautical miles northeast of the VOR, at 4,800 feet. As the airplane approached the course reversal portion of the procedure turn, the captain initially directed the first officer to turn the airplane in the wrong direction. When the proper heading was finally given, the airplane had been outbound for about 2 minutes. During the outbound portion of the course reversal, the captain told the first officer to descend the airplane to 2,900 feet, although the procedure called for the airplane to maintain a minimum of 4,300 feet until joining the inbound course to the VOR. During the inbound portion of the course reversal, the captain amended the altitude to 3,000 feet. As the airplane neared the inbound course to the VOR, the captain called out the outer marker. The first officer agreed, and the captain stated that they could descend to 2,300 feet. The first officer then noted that the VOR indications were fluctuating. The captain pointed out the VOR's continued reception, and the first officer noted, "but it's all over the place." Shortly thereafter, the first officer stated that he was descending the airplane to 2,300 feet. Three seconds later, the airplane impacted trees, then terrain. The wreckage was located at the 2,300-foot level, on rising mountainous terrain, 061 degrees magnetic, 12.5 nautical miles from the VOR. It was also 10.3 nautical miles prior to where a descent to 2,300 feet was authorized. There was no evidence that the crew used available DME information. There was also no evidence of pre-impact mechanical malfunction.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The captain's failure to maintain situational awareness, which resulted in the airplane being outside the confines of the instrument approach; and the crew's misinterpretation of a step-down fix passage, which resulted in an early descent into rising terrain. Factors included the captain's misreading of the instrument approach procedure, the crew's rushed and incomplete instrument approach briefing, their failure to use additional, available navigational aids, and their failure to account for the winds at altitude.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - IAF TO FAF/OUTER MARKER (IFR)

Findings

1. (C) BECAME LOST/DISORIENTED - PILOT IN COMMAND
2. (C) NAVAID SIGNAL - MISJUDGED - FLIGHTCREW
3. DESCENT - PREMATURE - FLIGHTCREW
4. (F) IFR PROCEDURE - MISREAD - PILOT IN COMMAND
5. (F) CREW/GROUP BRIEFING - INADEQUATE - FLIGHTCREW
6. (F) SELF-INDUCED PRESSURE - FLIGHTCREW
7. (F) COMPENSATION FOR WIND CONDITIONS - NOT USED - FLIGHTCREW
8. (F) IMPROPER USE OF EQUIPMENT/AIRCRAFT - FLIGHTCREW

Pilot Information

Certificate:	Airline Transport	Age:	30
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine
Flight Time:	4250 hours (Total, all aircraft), 1000 hours (Total, this make and model), 3058 hours (Pilot In Command, all aircraft), 55 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Learjet	Registration:	N388LS
Model/Series:	35A 35A	Engines:	2 Turbo Jet
Operator:	AIRCRAFT CHARTER GROUP, INC.	Engine Manufacturer:	Garrett
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	TFE 731
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LEB, 600 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Overcast / 1200 ft agl	Wind Speed/Gusts, Direction:	5 knots / , 190°
Temperature:	41° C	Visibility	5 Miles
Precipitation and Obscuration:			
Departure Point:	BRIDGEPORT, CT (BDR)	Destination:	LEBANON, NH (LEB)

Airport Information

Airport:	LEBANON MUNICIPAL AIRPORT (LEB)	Runway Surface Type:	Asphalt
Runway Used:	25	Runway Surface Condition:	
Runway Length/Width:	5496 ft / 100 ft		

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	Unknown
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	PAUL R COX	Adopted Date:	12/07/2000
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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